

1.2 m Ku-Band Tx/Rx Antenna Systems

Eutelsat Type Approval # EA-A020
Intelsat Type Approval # IA083A00

Ku-Band Specifications		Transmit	Receive
Polarity		Linear	Linear
eutelsat approved Frequency		13.75-14.5 GHz	10.7 - 12.75 GHz
eutelsat approved Frequency		14.0 - 14.5 GHz	10.7 - 12.75 GHz
Single Optic Specifications			
Cross Polarization On Axis		35 dB	30 dB
within 1 dB Beamwidth		26 dB	22 dB
Tx/Rx Sidelobe Level		29 - 25 log θ -3.5 32 - 25 log θ -10	100 λ /D < θ < 20° 20° < θ < 26.3° 26.3° < θ < 48° 48° < θ
Dual Optics Specifications			
Cross Polarization on axis		35 dB	35 dB typ
within 1 dB Beamwidth		35 dB	35 dB typ
Tx/Rx Sidelobe Level		29 - 25 log θ +8 32 - 25 log θ -10	2.5° < θ < 7° 7° < θ < 9.2° 9.2° < θ < 48° 48° < θ
Feed - 2 Port Xpol			
Return Loss		20 dB typ	17.7 dB typ
Insertion Loss		0.1 dB typ	0.3 dB typ
Tx/Rx Isolation		80 dB	40 dB
Feed Interface		WR75	WR75
Antenna Specifications			
Efficiency		70%	70%
Midband Gain		43.4 dBi	41.8 dBi (11.725 GHz)
Noise Temperature		---	58 K @ 10° EL 53 K @ 30° EL
Mechanical Data			
f/D Ratio		.635	
Focal Distance		30 in / 76.2 cm	
Mount Type		Elevation over Azimuth	
Mast Pipe Size		2 7/8 or 3 in / 7.30 cm or 7.62 cm O.D.	
Offset Angle		22°	
Elevation Adjustment		8° to 90° Continuous Fine Adjustment	
Azimuth Adjustment		+ 3° Fine, 360° Continuous	
Environmental Data			
Wind Loading	Operational	60 mph, gusts of 80mph	100 kph, gusts to 130 kph
	Survival	120 mph 193 kph	
Temperature	Operational	-40° to 140° F (-40° to 60°C)	
	Survival	-60° to 180° F (-51° to 82°C)	
Rain	Operational	1.5 in/hr (3.1 cm/h)	
	Survival	3 in/ her (7.6 cm/h)	
Ice	Survival	2.5 cm (1 inch) radial or 1.3 (.5 inch) radial	+ 100 kph (60 mph)



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TX-INT120KUG
IA083A100



TX-EUT120KU
EA-A020

Features

- Navigator™ Style Fine Azimuth and Fine Elevation Adjustments
- Single Piece Deep Drawn Metal Reflector
- Sturdy 2" Square Boom Accommodates Many Outdoor Units, Holds up to 14 lbs / 6.35 kg at end of boom
- Az/EI interface to 2 7/8 or 3 in O.D. Pipe/ 7.30 or 7.62 cm
- Includes Two port Linear Tx/Rx Ku-Band Feed assembly
- Backframe Pre-assembled to Reflector

Description

The excellent surface accuracy of the main parabolic reflector is complemented by the cast accuracy of the lightweight sub reflector. The two combine to create superior system performance at Ku-Band. The pre-assembled steel back structure adds strength and stability to the system and keeps the installation process simple.

The Navigator Style fine tune Azimuth and Elevation cap reduces pointing errors during installation, allowing more accurate boresighting on the satellite. Increased pointing accuracy leads to greater link availability. Special packaging techniques are employed for every system shipped to protect the surface of the dish.